HENRY EELES DRESSER.

As we go to press we hear with deep regret of the death of Mr. Dresser on November 28 last, at Cannes. We hope to publish a memoir of him in the next number of 'The Ibis.'

VII.—Notices of recent Ornithological Publications.

Blaauw's Travels in South Africa.

[Ornithologische waarnemingen in het zuiden der Kaapkolonie door F. E. Blaauw. 'Ardea,' Leiden, 1915, pp. 1-19, 49-74, pls. ii. & iii.]

In March last year our fellow-member, Mr. Blaauw, made a journey to South Africa, and in this paper he tells us his adventures and a good deal about the birds he noticed at the different places he visited.

Landing at Cape Town on the 1st of April, he noticed the European Swallows just getting ready to depart northwards, and mentions many of the commoner birds, Doves and Robins (Cossypha), Fiskal Shrikes, and Sparrows. abundance of the European Starling, only introduced a few years ago, greatly astonished him. Leaving Cape Town by train he travelled via Caledon to Bredasdorp, a village in the south-western part of the Colony, near which is Dr. Albertyn's farm of Nachtwacht, where the handsome antelope, the Bontebok, still survives, and where it has been carefully preserved for 100 years; thence travelling back to Caledon and on to Oudtshoorn, where he visited the celebrated Cango caves, and Mossel Bay, he took ship to Port Elizabeth, East London, and Durban, at all of which places he made excursions and noted the occurrence of the various birds he met with.

He mentions what does not seem to have been noticed before, the common occurrence of the Indian Mynah (Acridotheres tristis) at Durban, where it has been introduced by the Indian coolies. He also mentions one particularly rare bird, Chatops franatus, which he came across near Caledon.

Leaving Durban on May 15, he got back to Antwerp about a month later. The two plates are from photographs: one of the interior of the Caugo caves, the other of the breeding-place of the Malagash (Sula capensis), probably on Bird Island in Algoa Bay.

Chalmers Mitchell on the Anatomy of the Coulan, or Limpkin.

[Anatomical Notes on the Gruiform Birds Aramus giganteus Bonap, and Rhinochetus kagu. By P. Chalmers Mitchell. Proc. Zool, Soc. 1915, pp. 413-423.]

The opportunity of the death of the only example of this species which had ever reached the Zoological Gardens enabled Dr. Mitchell to make a dissection of this rare bird, which is a northern representative of Aramus scolopaceus of South America.

The anatomy of the South American species had already been studied by Garrod and by Dr. Mitchell himself, and, as was to be expected, it was found that the northern form resembled the southern one very closely so far as anatomical characters were concerned. Dr. Mitchell wisely warns us as follows:—"I do not suggest, however, that the two species should be merged. The more experience I gain of avian anatomy, the more I am convinced that systematists are well advised when they rely, at least with regard to the discrimination of species and genera, more on those superficial characters that they can observe in the series of museum collections, than on the uncertain indications afforded by the presence or absence of this or that muscle."

A full discussion of the myology is given, and the final conclusion is stated that *Aramus* is naturally and properly placed among the Gruiform birds.

Chapin on new African Birds.

[Descriptions of three new Birds from the Belgian Congo. By James P. Chapin. Bull. Amer. Mus. N. H. New York, xxxiv. 1915, pp. 509-513.]

During the last six years the American Museum has had an exploring and collecting expedition in the Belgian Congo,

under the leadership of Mr. Herbert Lang. The collections, which have been gathered from all parts of that vast territory from Lado to Boma, have now reached New York. The birdskins are about 6000 in number, representing some 600 species, and many of these appear to be hitherto unknown. The first three new forms are here described, viz. Chetura melanopygia, Apaloderma minus, and Ceriocleptes xenurus, all from the Ituri district. The last named, for which a new generic name is proposed, is a new type of Honey-Guide (Indicatoridae), distinguished by its curiously-shaped tail composed of twelve pointed and outwardly-curved feathers, the middle pair being the longest and widest and forming a strong fork, the others narrow, stiffened, and successively shorter. The under tail-coverts are unusually long and project into the fork of the tail. A figure of this remarkable structure is given.

Cooke on the Protection of the American Shore-birds.

[Our Shore-birds and their Future. By Wells W. Cooke. Year-book Dept. Agric. Washington, D.C. for 1914-1915, pp. 275-294.]

More and more our American cousins are getting auxious about the preservation of bird-life in the United States, and every year sees additional legislation, the extension of reserves, and the restriction of indiscriminate shooting, and, what is more important still, a healthier public sentiment about this matter. The present pamphlet by Mr. Cooke, who is perhaps our best authority on migration and migration routes in the States, pleads for the Wilson Snipe, the American Woodcock, and the Upland Plover, all of which, but especially the Woodcock, which breeds throughout the eastern half of the States, have become much diminished in numbers. Up till quite recently it has only been possible to make protective laws by State legislation, but it has become increasingly evident that Federal legislation covering the whole of the United States is necessary, and after many years of agitation, a national law for protecting migratory game and insectivorous birds was passed by Congress in 1913. Under its provisions the Department of Agriculture is given

full authority to determine what shall be closed seasons, and to prepare regulations for their due observation. This has now been done, and spring-shooting, when birds are returning from their winter-quarters to their breeding-places, has now been forbidden. It is hoped that this, together with an enlightened public sentiment to aid in its enforcement, will allow the Shore-birds, as well as the Woodcock and Snipe, to again become common enough, not only to enliven the beaches and swamps with their welcome presence, but to afford the hunter a fair amount of legitimate sport.

Cory on new South American Birds.

[Notes on South American Birds, with descriptions of new Subspecies. By Charles B. Cory. Field Mus. Nat. Hist. Chicago, Ornith. Ser. i. 1915, pp. 303-335.]

The first portion of this paper contains descriptions of new subspecies of *Threnites*, *Piaya*, *Chrysoptilus*, *Veniliornis*, and *Scapaneus*, from different localities in South America, together with keys of the subspecies of *Chrysoptilus punctigula*, and of the species of *Piaya*.

The latter portion of the paper is devoted to a discussion of the various forms of the American Sparrow-Hawk (Cerchneis sparveria) found in South America. Mr. Cory recognises fourteen subspecies, three of which he here describes for the first time.

Faxon on Peale's Museum.

[Relics of Peale's Museum. By Walter Faxon. Bull. Mus. Comp. Zool. Harvard, lix. 1915, pp. 119-148.]

It has always been a matter of regret to American ornithologists that the birds known to have been deposited in the Museum known as Peale's Museum at Philadelphia have been lost to science.

Charles Willson Peale, artist and soldier, born in 1741, started his Museum in 1784 in Philadelphia; after his death it became the property of a joint stock company, which finally came to grief, and the natural history specimens were acquired half by P. T. Barnum and half by Moses Kimball.

Peale's Museum was of considerable scientific importance; in it were deposited the spoils of the Lewis and Clark Expedition to the Columbia River in 1804–1806, as well as those obtained by Major Long, with his assistants Thomas Say and Titian R. Peale (son of Charles Willson Peale) during his journey to the Rocky Mountains in 1819–20. Wilson, the author of 'American Ornithology,' and many of the other early American naturalists also deposited their collections in Peale's Museum, so that a number of invaluable types of North American birds must have been stored there. The portion of the collection bought by Moses Kimball in 1839, who was the proprietor of a Museum in Boston known as the New England Museum, has now, after many vicissitudes, passed into the possession of the Museum of Comparative Zoology at Cambridge, Mass.

Mr. Faxon has now been very carefully through all these old and somewhat battered birds, and has endeavoured to trace a connection between them and the birds as figured by Wilson, some with more, some with less success. As all the old labels were removed at the time of the sale of Peale's Museum, these identifications must always be a matter of some doubt, but it seems probable that some, at any rate, are correct.

Ghidini on the Herring-Gull.

[Le Larus cachinnans Pall., à Genève. Par Angelo Ghidini. Bull. Soc. Zool. Genève, 1915, pp. 111–115.]

All the evidence collected by Mr. Ghidini goes to prove that the Herring-Gull of the Lake of Geneva, where, however, it is not very common, is the Mediterranean form *L. cachinnans*, and not *L. argentatus* as has been generally supposed. He has not been able as yet to find out to which race the Herring-Gulls frequenting the Lake of Constance belong.

Gordon on Hill Birds of Scotland.

[Hill Birds of Scotland. By Seton Gordon, F.Z.S., M.B.O.U. Pp. xii+300; many illustr. London (Arnold), 1915. 8vo.]

This volume contains field-notes and observations by the

author, together with a good deal of other matter mostly derived from unrevealed sources relating to the following species :- Golden Eagle, White-tailed Eagle, Osprey, Peregrine, Kestrel, Raven, Grev Crow, Ptarmigan, Black Grouse, Red Grouse, Capercaillie, Woodcock, Snipe, Goosander, Curlew, Greenshank, Golden Plover, Dotterel, Oyster-catcher, Snow-Bunting, Dipper, Crested Titmouse, Sandpiper, and Dunlin, in the order given. Not a very scientific arrangement, and it is difficult to see why some of these should have been included among the "Hill Birds" to the exclusion of others. A few good photographs are reproduced illustrating some of the birds, their nests, and the surrounding scenery.

There is nothing told about these "Hill Birds" which is new or of special interest, and the author would have been wiser had he omitted discussions on subjects of which he has evidently no real knowledge and had confined himself to his personal observations. Some of these will no doubt be found interesting enough to the general reader, but unfortunately he has interlarded his chapters with many travellers' tales gathered from the hearsay of stalkers and such-like sources, which should be accepted with caution. Take the Golden Eagle as an instance. It is not clear whether such stories as the encounter between a Fox and a Golden Eagle (p. 12) are the result of personal observation. Many of his statements are obviously incorrect. It is solemnly suggested that the presence or absence of markings on the eggs of the Golden Eagle may possibly denote the sex of the young bird, though the author is not sure whether the spotted egg contains a male or a female. "Deer, calves, and lambs are taken also, though I cannot say I have ever come across the remains of either of these animals in an evrie." Lambs we have seen, and once a black water-vole, besides the usual grouse and blue hares at the nest, but never deer and calves! The remains of "three hundred duck and forty hares at one nest" sounds rather a tall order.

We are also told "there is no bird has so wide a range as

the Golden Eagle—in fact it is met with throughout the world."

This is the sort of loose statement that discredits the whole book—the little knowledge the publication of which is not only misleading but does much harm.

It would be interesting to learn what authority there is for stating that a Grouse from the south of Ireland "turned the scales at no less than two and a half pounds." The record, so far as we are aware, is one of 34 ozs.; but 40 ozs.! (p. 146). It must have been a muckle Grouse.

The author's remarks on the supposed occurrence of the Rock-Ptarmigan, Lagopus rupestris, in Sutherland are amusing (p. 127). It would be interesting to know how he distinguishes between females of L. mutus and L. rupestris in breeding plumage. Apparently he can do so quite easily. We are told that the "true Ptarmigan" occurs in the Altai Range, etc., and in Japan, though it is well-known that only the Rock-Ptarmigan is found there: also that "it seems to be absent from the Himalayas and the Andes."

The author evidently considers that, in the interests of photography, it is lawful to hustle a Goosander off her eggs, causing her to break one and no doubt forsake them, or to bundle a half-fledged family of young Crested Titmice out of their nest; but he regards it as a sin that a few specimens of the latter species (we find on enquiry at the British Museum there were only five) should have been collected with the landowner's permission for the National Collection for strictly scientific purposes.

Of the Woodcock he writes:—"When the blackberries have ripened, the Woodcock betake themselves to the hill-sides and consume great quantities of the fruit" (p. 160).

No proof of this amazing statement is offered. When is a Woodcock not a Woodcock? When it's a Blackcock or Grouse.

Surely no good Scotchman wants to talk of "Scots" firs!

These are only a few instances of the book's imperfections.

Hony on Wiltshire Birds.

[Notes on the Birds of Wiltshire. By G. Bathurst Hony, M.B.O.U. Wilts Archæol. & Nat. Hist. Mag., Devizes, xxxix. 1915, pp. 1-14.]

Since the appearance of the Rev. A. C. Smith's 'Birds of Wiltshire' in 1887, many new records for the county have occurred. At the same time Mr. Smith erred perhaps on the lenient side in admitting a good number of species to his list on what seems to be insufficient or incomplete evidence. In the present paper Mr. Hony rejects the Great Black Woodpecker, the Yellowshank, and one or two other species from his list and adds several new ones, giving a summary of the evidence relating to the occurrence of many of the newer visitors.

A complete list of the birds known to have occurred in Wiltshire is given by Mr. Hony. These number 248, but nine of these are unsatisfactory in Mr. Hony's opinion, the correct number is therefore 239. In Smith's work, which included the nine unsatisfactory records, 235 were given, so that thirteen species have been added to the list since 1887.

Levick on the Adélie Penguin.

[Natural History of the Adélie Penguin. By Staff-Surgeon G. Murray Levick, R.N., in the Natural History Report of the British Antarctic ('Terra Nova') Expedition, 1910: Zoology, vol. i. no. 2, pp. 55-84, pls. i.-xxxi. London (British Museum Natural History), 1915. 4to.]

The literature on the subject of the Adélie Penguin is now becoming very extensive. Not only have Dr. Wilson, Mr. Bernacchi, and Dr. Louis Gain, the zoologist of Dr. Charcot's expedition, given us a good deal of information, but Dr. Levick himself has already published an account of his observations in popular form under the title of 'Antarctic Penguins: a Study of their Social Habits.' We welcome the present account, however, as the size of the publication enables justice to be done to the magnificent photographs, 31 in number, taken by the author himself: they illustrate all the phases of the Penguin's life, and give one a wonderful idea of its life when at the rookery.

Staff-Surgeon Levick's observations were all made at the rookery at Cape Adare during the summer season 1911–12, and he enters very minutely into the life-history of the birds during mating, nesting, incubation, and the upbringing of the young birds until the departure from the rookery, for which, curiously enough, he does not give a definite date.

Mathews on Australian Birds,

[The Birds of Australia. By Gregory M. Mathews. Vol. v. pt. 1, pp. 1-152, pls. 234-244. London (Witherby), November 1915. 4to.]

In this Part the author has reached the Falconiformes, and he begins the Order with his usual preliminary dissertation, in which he treats of its handling by Kaup, Sharpe, Gurney, and others. Naturally we cannot always expect such discoveries as in the case, for instance, of the Petrels; but the interest is well sustained throughout these pages, and lies to a great extent in reviewing the work of ancient voyagers, while determining the species they met with, and correcting their errors or those of their successors. Very full accounts are given of the early history of the birds, and of the genera under which they should be placed; while much information, both old and new, is given of their habits, the Harriers and the Wedge-tailed Eagle being good examples of this treatment.

On one point we can hardly agree with Mr. Mathews. He appears to consider it best that all doubtful forms should be provisionally named, and the names upheld until their validity is disproved. This tends to cumber our pages subsequently with many synonyms, and we believe that the needs of the moment might be met by simply discussing the forms without naming them, especially in the case of subspecies. In the present Part, racial names are bestowed on various subspecies, though they are included in the specific synonymy, and are only recognized as doubtful in the letterpress that follows (cf. pp. 32, 42, 71, 81, 112, 123, 142, 148).

Several points of special importance should be noticed. Lacepède's names are considered "nomina nuda" and cited

as of Daudin. The species of Circus and Leucospiza are carefully disentangled, the Grey and the White Goshawk being referred to the latter genus, and considered distinct species rather than colour variations, though they sometimes interbree! Similarly many difficulties are cleared up with regard to Astur approximans, now shown to be correctly named Urospiza fasciata. A new subgenus, Paraspizias, is proposed for Accipiter circhocephalus. Hieraëtus is used as the generic name for Nisaëtus morphnoides, which is considered to be merely a subspecies of the Palearetic H. pennatus, and Cuncuma is used for Haliaëtus leucogaster. Butastur teesa is given as doubtfully Australian. Ictiniastur is proposed as a new subgenus for Milvus sphenurus of Vieillot.

The new subspecies in this Part are Circus assimilis quirindus from Celebes, &c., and Accipiter cirrhocephalus quesitandus from northern Australia, while Leucospiza nove-hollandiæ alboides is suppressed.

Many of the Watling drawings come to be considered in this portion of the work.

Miller on new Generic Types.

[Three new Genera of Birds. By W. De Witt Miller. Bull. Amer. Mus. N. H. New York, xxxiv. 1915, pp. 515-520.]

The new genus Stringonax is proposed for Bubo blakistoni Seebohm as a type, and for its ally B. doerriesi, from Japan and from eastern Siberia respectively. Mr. Miller points out that these Owls are really most nearly related to the Fish Owls, Ketupa, but quite distinct from these as well as from Bubo.

For the Neotropical Goatsuckers Hydropsalis lyra (Bp.) and H. segmentata (Cass.), the new genus Uropsalis is proposed, the first-named species being the type. In the graduation of the tail and the form of the wing these species are markedly distinct from H. creagra, the type and only other species of the genus Hydropsalis. A third genus, Chryserpes, is proposed for the peculiar Haitian Woodpecker, Chloronerpes striatus (Müll.) of Sharpe's 'Hand-list.'

Shufeldt on the Eggs of the Auklets.

[Eggs of North American Water-Birds, Parts ii. & iii. By R. W. Shufeldt. 'Blue-Bird,' Cincinnati, vii. 1915, pp. 270-278, 300, 304, pls. v.-ix.]

This is a short notice of the Alcidæ of the United States, with descriptions and figures of their eggs. Some of these are reproduced in colour.

Taverner on the shortcomings of Canadian Ornithologists.

[Suggestions for Ornithological Work in Canada. By P. A. Taverner. Ottawa Naturalist, xxix. 1915, pp. 14-18, 21-28.]

The study of Canadian birds has hitherto, according to Mr. Taverner, been much neglected, and what work has been done has been accomplished to a great extent by the naturalists of the United States. To improve this state of things a number of lines of investigation are suggested, especially in regard to migration problems, as well as in the more accurate determination of the distribution of bird-life in the Dominion. To these and other matters Mr. Taverner calls the attention of his fellow ornithologists in Canada.

Thorburn's British Birds.

[British Birds, written and illustrated by A. Thorburn, F.Z.S. Vol. ii. pp. vi + 72, pls. 21–40. London (Longmans), 1915. 4to. £6 6s. for the 4 vols.]

The second volume of Mr. Thorburn's beautiful work follows quickly on the first, which was noticed in the July number of the 'Ibis' last year.

The Passerine birds are completed with the Larks and Crows, and in addition the Picarians, Birds of Prey, Cormorants, and Herons are dealt with in the present volume.

As most of the species figured in this volume are large ones, they are not so crowded as in the first, only two or three figures, as a rule, occupying each plate. This, to our mind, constitutes a great improvement. We would especially commend Plate 28, the Eagle Owl, and Plate 36, the

Greenland and Iceland Falcons, as magnificent reproductions of the birds, and very fine pictures; while Plate 24, which contains the Woodpeckers, the Kingfisher and Roller, appears to us somewhat incongruous, and justice is hardly done to the brilliant coloration of the two last-named species, nor do they seem happily placed in the same surroundings as the Woodpeckers; but this is, of course, inevitable with the plan of the work.

We shall look forward to the appearance of the next volume, which we presume will contain the Game-birds and Ducks, in the representation of which Mr. Thorburn is so justly famed.

Wood on the Eyelids of Birds.

[The Eyelids and Lachrymal Apparatus of Birds. By Casey A. Wood, M.D. Reprint from 'Ophthalmology,' Seattle, U.S.A., for July 1915, pp. 1-18, 11 figs.]

Those interested in the muscular and nervous mechanism of the birds' eyelids and lachrymal apparatus, together with their structural details, or who are curious about the arrangement by which the anterior surface of the eyeball in birds is cleansed or protected from various forms of injury, will find much instructive material in Dr. Casey Wood's exhaustive paper on the subject above quoted.

Most of the investigations forming the basis of this paper were made in the physiological laboratories of Stanford University in conjunction more especially with Professor Slonaker, and the results were first reported to the Ophthalmological Congress at Oxford in July 1914.

It is probable that among the many interesting details which Dr. Wood records, what will interest ornithologists more especially is the fact that, unlike what obtains in Man and many other Mammals, there is no true union of the conjunctive of the two lids in birds prior to hatching. "In the Sparrow," says Dr. Wood, "and probably in all the Passeriformes, the lids are wide open during embryonic life; but as soon as the embryo is hatched the eyes are closed and remain

closed for several days. There is no evidence that any organic union occurs between the lid-margins in these 'born-blind' birds. In all probability the closed eyes are due to tonic contraction of the orbicularis muscle as a light-reflex act."

It follows that, if this is so, we have no means of foretelling by an examination of the eyelids of the embryo, whether or no such an embryo will be hatched "blind." It is probably true to say that most ornithologists would have thought otherwise.

Details are given of the structure and functions of the nictitating membrane.

Slonaker and Wood conclude that this membrane is a conjunctival duplication—a thin translucent membrane composed of delicate connective tissue interspersed with elastic fibres running in various directions. It has a firm thickened free margin, but no hyaline cartilage cells. This latter provision enables the free border to be closely applied to the cornea, so that when it sweeps over the latter it carries with it some of the fluid secretion of the Harderian gland and thoroughly cleans and moistens the corneal surface. The presence of elastic fibres gives to the third lid the qualities of a thin rubber band which, when put upon the stretch, instantly flies back the moment the traction or "pull" is released.

In connection with this nictitating membrane, the important and interesting structure known as Slonaker's marginal plait is described and illustrated, and the author calls attention to the fact that strangely enough Fumagalli ("Ueber die feinere Anatomie des dritten Augenlides," Internat. Monatsschr. für Anatomie und Physiologie, vol. xvi. 1899, p. 129) seems to have entirely overlooked it.

Interesting details are given as to the mode of attachment of the Pyramidalis muscle to the free border of the third lid and its mode of action.

The musculature of the eyeball and the structure of the lachrymal gland and its ducts are described at length.

The Auk.

[The Auk. A quarterly journal of Ornithology. Cambridge, Mass., U.S.A. Vol. xxxii. 1915.]

The volume of the Auk for 1915 contains a large number of articles on various aspects of Ornithology, and it is impossible to do more here than indicate the contents of some of the more attractive ones.

We may preface our remarks by stating that a new drawing of the Great Auk has been prepared by Mr. Fuertes and appears on the brown cover of the January number for the first time. It is decidedly an improvement on the former design in every way.

Among the anatomical papers is one by Dr. H. von Ihering, of the São Paulo Museum in Brazil, in which he combats the proposed separation of the Furnariidæ as a distinct family from the Dendrocolaptidæ. This proposal, advocated by Ridgway and other authors, is based mainly on the supposed schizorhinal characters of the skull of the Furnariidæ as opposed to the holorhinal skull of the Dendrocolaptidæ. Dr. von Ihering shows that, as Fürbringer has already made clear, the so-called schizorhinal modification in the Furnariidæ is only superficial and of no morphological value, and that there are no anatomical grounds for separating these two groups into distinct families.

Dr. Shufeldt's memoir on the anatomy of the last Passenger Pigeon has already been noticed in our pages. He also describes a new species of Hesperornis (H. montana) from Cretaceous beds in Montana, and some further account of an extinct Cormorant (Phalacrocorax macropus Cope) from the tertiary beds of the same State.

In an interesting communication Mr. O. Bangs discusses the question of the dichromatic phases of certain Herons, especially *Butorides brunnescens* of Cuba and its relation to the widely-spread *B. virescens*. Apparently every variation, from the extreme crythristic phase to individuals hardly separable from the common *B. virescens*, occur, while the

two forms are found in the same distributional area, and Mr. Bangs considers B. brunnescens can only be regarded as a colour variation. The same conclusions hold good in the case of Ixobrychus neoxenus (Cory), which is only a colour phase of I. exilis, and Ardea herodias wardi Ridgw. and A. würdemanni Baird, which bear the same relation to A. herodias occidentalis Aud.

Among the North American faunal papers, which are generally illustrated with photographs of the scenery of the localities, are those of H. H. Kopman on the birds of Louisiana; Geo. Willett on those of Forrester Island, Alaska; G. F. Simmons on the birds of Houston in Texas; and S. F. Rathburn on those of Puget Sound on the Pacific Coast.

Of faunal papers outside North America, Mr. J. C. Phillips writes an account of a desert journey made by him in the spring of 1914 from Suez through the Sinaitic Peninsula to Jerusalem. He was fortunate enough to obtain an example of the very rare Strix butleri, of which only two examples had been previously taken. This species is figured in colour. He also distinguishes as new a Rose-Finch from Petra in southern Palestine, under the name Carpodacus synoicus petræ.

Mr. R. C. Murphy, who recently went on a whaling voyage to the southern seas, contributes three short papers. A few hours spent on the island of Fernando Noronha, off the coast of Brazil, did not produce anything novel. In a second paper he extends the range of *Oceanodroma leucorrhoa* southwards into the tropical Atlantic, off Cape São Roque, in Brazil.

A discussion of the history and avifauna of Trinidad Island in the south Atlantic forms the subject of a third paper by Mr. Murphy. He was unable to land on the island, but spent a day fishing from a small boat outside the line of the breakers, and secured a Petrel which he believes to be new, and calls **Estrelata chionophara*; this is the fourth species of the genus described from this island, the others being **E. arminjoniana*, **E. trinitatis*, and **E. wilsoni*, all closely allied in structure and only differing

in plumage details. The explanation and significance of this phenomenon is still to be sought.

Among strictly systematic papers continued in the present volume is one by Mr. F. M. Chapman on the genus Scytalopus of the Neotropical family Pteroptochidae. These birds are exceedingly shy and retiring, of mouse-like habits, and live in the dense undergrowth of the Andean Forest. They are consequently exceedingly rare in collections. Mr. Chapman reviews the species found in the northern parts of South America and proposes four new species—S. canus, S. infasciatus, S. sancta-marta, and S. paramensis, and a new generic name Myornis for S. senilis (Lafr.).

In a study of the migration routes by which birds reach the Mackenzie Valley of north-west Canada, Mr. W. W. Cooke finds that the larger proportion of the summer birds of this region come from the Mississippi Valley, and comparatively few from California and the country west of the Rocky Mountains. He has been able to construct what he calls isochronal lines, showing on the map the latitudes reached on any particular date in the northward movements of a species; if these are correctly plotted they show very clearly the route of the migration of a species.

A series of five articles on the early history and distribution of the Wild Turkey in North America, commenced in the previous volume by Mr. A. H. Wright, are now brought to a close.

There are many other papers which we should like to notice, but space forbids. We would like to draw attention, however, to an appreciative memoir of Theodore N. Gill (1837-1914), whose death was not noticed in the pages of 'The Ibis.' Though chiefly known as an ichthyologist, he wrote largely on other subjects and at one time owned and edited an ornithological journal, 'The Osprey.' He was described by Dr. Jordan as "Master of Taxonomy," while Prof. Baird characterised him as "the most learned of American naturalists."

Avicultural Magazine.

[Avicultural Magazine. Third series. Vol. vi., Nov. 1914-Oct. 1915.]

So many of our members are also members of the Avicultural Society that it is hardly necessary to do more than to call attention to the continued excellence and interest of the magazine.

The present volume contains coloured plates of the Brown Thrasher (Harporhynchus rufus) and the Rose-breasted Grosbeak (Hedymeles ludovicianus), both by Bruce Horsfall, an American artist, and also of Pyrrhula erythrocephala, of the Mikado Pheasant, and the Ruddy-headed Goose.

Descriptions of the breeding-habits in captivity of the following species are recorded:—Charmosynopsis pulchella by E. J. Brook; Geocichla citrina, Turdus migratorius, and Urocissa occipitalis by Dr. M. Amsler; Liothrix tuteus by G. E. Low; Conurus cactorum, Panurus biarmicus, and Zosterops viridis by Dr. Lovell Keays; Colius striatus by G. H. Gurney; and Glaucidium jardinei by Miss Chawner. In the case of the two last-named the medal of the Society was awarded.

One of the recent triumphs of aviculture is the successful introduction and keeping of Humming-birds in Europe. An anonymous French correspondent gives some account of his journey to the West Indies in search of these birds. He was able to bring back with him alive three species—Eulampis jugularis, E. holosericeus, and Bellone exilis. One bird of the first-named species and an example of the Cuban Sporadinus recordi have been in the possession of Mr. D. Ezra for now over a year, and appear to flourish in a room in Mount Street, Grosvenor Square!

Dr. Hopkinson continues through the volume his Dictionary of the English names of Farrots; and Mr. Astley, the genial editor, to whom we must offer our congratulations on completing another volume, communicates a most interesting observation of an incident in the life-history of the Cuckoo.

California Fish and Game.

[California Fish and Game. Conservation of Wild Life through Education. Vol. i. nos. 1-4, 1914-1915.]

This is a new magazine issued quarterly by the California Fish and Game Commission, in order to endeavour to educate the Californians, before it is too late, in the matter of the conservation of wild life. Many of the articles deal with the game animals and the fishes, but there are many notices of the increasing rarity of some of the Californian birds, especially the Pigeons and Ducks. Messrs, Grinnell and Bryant enter a special plea for the Wood Duck (Aix sponsa), with the exception perhaps of the Chinese Mandarin, the most brilliantly coloured of all the Ducks. Formerly it was abundant throughout California, where it is practically a resident, only making a slight north and south migratory movement each year. Now it can hardly be included among Californian Gamebirds, it has become so scarce. Under the new Federal game-law it has been afforded complete protection for five years, and it is hoped that this may enable it to increase its numbers throughout the State.

Messager Ornithologique.

[Messager Ornithologique. Cinquième année, 1914, Nos. 1 & 2.]

Only the first two numbers of this Russian ornithological periodical reached us last year. Probably the other two were lost in the post at the beginning of the war; but as few copies of this journal reach England, it seems worth while, at any rate, to give the principal contents of these two numbers.

The volume opens with an account of a collection of birds made in the Caucasus in the summer of 1913 by Prof. Suschkin. It is written, as are all the contents of the journal, in Russian, but has a German resumé. Other articles by the same author deal with the racial forms of Caccabis chukar, with the possible occurrence of Cyanistes cyanus yenisseensis in the neighbourhood of Kiev, with the Cuckoos of Turkestan,

whence he distinguishes a new subspecies Cuculus canorus subtelephonus, which is stated to breed there, and finally with the taxonomy of the forms of Parus bokharensis found in the same region.

M. Serebrowsky writes on the birds of the Government Nischegorodsk, and M. P. L. Ammon on finding Troglodytes parrulus and Aquila chrysaëtus breeding in the Government Tula. Finally, the Editor, M. G. I. Poliakow, concludes his account of the ornithological explorations which he made in 1909 to the Saissan-nor and Markakul lakes in western Siberia. This last-named article is separately paged and illustrated with a number of photographs and drawings, and will, we presume, be eventually issued as a separate work.

List of other Ornithological Publications received.

BONHOTE, J. L. Vigour and Heredity. London, 1915.

Grinnell, J. A Distributional List of the Birds of California. Pac. Coast Avifauna, No. 11. Hollywood, Cal., 1915.

Poncy, R. Rapport de la Station Ornithologique du Port de Genève et de ses Environs, 1914-5.

Contribution à l'Etude de la Faune du Grand-Saint-Bernard. Bull. Soc. Zool. Genève, ii. 1915.

Shufeldt, R. W. A Critical Study of the Fossil Bird Gallinuloides wyomingensis Eastman. Journ. Geol. xxiii. 1915.

Comparative Osteology of Certain Rails and Cranes, etc. Anat. Rec. ix. 1915.

Austral Avian Record. (Vol. iii. No. 2. London, 1915.)

Avicultural Magazine. (Third Series, Vol. vii. Nos. 1, 2. London, 1915.)

Bird Notes. (New Series, Vol. vi. Nos. 10-12. Ashbourne, 1915.)

British Birds. (Vol. ix. Nos. 6, 7. London, 1915.)

The Condor. (Vol. xvii. Nos. 5, 6. Hollywood, Cal., 1915.)

The Emu. (Vol. xv. pt. 2. Melbourne, 1915.)

The Irish Naturalist. (Vol. xxiv. Nos. 10-12. Dublin, 1915.)

Journal of the Federated Malay States Museums. (Vol. vi. pts. 2, 3. Kuala Lumpur, 1915.)

The Scottish Naturalist. (Nos. 46-48. Edinburgh, 1915.)

The South Australian Ornithologist. (Vol. ii. pt. 4. Adelaide, 1915.)